

Patent claims

1. An arrangement for a dental replacement component,
5 for example in the form of all or part of a dental
bridge, tooth preparation (3), etc., which can be
given a coloring which matches the area
surrounding the replacement component (in the
10 patient's mouth), the replacement component having
a reinforcing element (4) which comprises carbon
fiber wires which are arranged in one or more
carbon fiber hoses and can be held together by
means of hardenable substance so as to form a
homogeneous part of the reinforcing element,
15 characterized in that the carbon fiber part, at
least in its portion or portions directed toward
the surrounding area, supports or is provided with
additional fiber material with a color which
better matches said coloring than does the carbon
20 fiber (8).
2. The arrangement as claimed in patent claim 1,
characterized in that the additional fiber
material has a tube shape and encloses all or said
25 portion/portions of the carbon fiber.
3. The arrangement as claimed in patent claim 1 or 2,
characterized in that the additional fiber
material (9) is designed not only to cover the
30 dark color of the carbon fiber, but also to
increase the stiffness and/or strength of the
homogeneous carbon fiber part.
4. The arrangement as claimed in patent claim 1, 2 or
35 3, characterized in that the additional fiber
material comprises or consists of aluminum oxide
fibers.
5. The arrangement as claimed in patent claim 4,

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characterized in that the additional fiber material is substantially white.

- 5 6. The arrangement as claimed in any of patent claims 1, 2 or 3, characterized in that the additional fiber material comprises or consists of para-aramid fibers.
- 10 7. The arrangement as claimed in patent claim 6, characterized in that the additional fiber material is substantially yellow.
- 15 8. The arrangement as claimed in any of patent claims 1-5, characterized in that the additional fiber material is provided with moisture absorption corresponding to or only slightly exceeding the moisture absorption of the carbon fiber.
- 20 9. The arrangement as claimed in any of patent claims 1-8, characterized in that the layer or wall thickness of the additional fiber material is 1-5% of the thickness or diameter of the reinforcing element.
- 25 10. The arrangement as claimed in any of patent claims 1-9, characterized in that carbon fiber hoses with carbon fiber wires are placed in a hose made of the additional fiber material.
- 30 11. A system for producing a dental replacement component, for example in the form of a dental bridge (3), tooth preparation (10), etc., which can be given a coloring which matches the area surrounding the component, said component having a reinforcing element (4) which comprises carbon fiber wires which are arranged in one or more carbon fiber hoses and can be held together by means of hardenable substance so as to form a homogeneous part of the reinforcing element,
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characterized in that identification equipment (13) is designed to identify the treatment situation on the patient and to transmit information to computer equipment (15) which, as a function of said information and through interaction with a user (24), is intended to permit display, on screen, of the replacement component and of a reinforcing element included in said component and having a core (8) or inner part of carbon fiber, and fibers (9, 9') completely or partially covering the core or inner part and made of a material, for example aluminum oxide or para-aramid, having a color which better matches said coloring than does the carbon fiber, and in that equipment involving considerable manual input and/or substantially fully automated equipment (PROCERA®) is arranged to take part in production of the reinforcing element on the basis of empirical data concerning the core and the fiber covering this, for example with the aid of data on diameters (D, D1), thicknesses (t), qualities, color, relations between the carbon fiber and the additional fiber, etc.

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